

Notice of Allowability

Application No.

10/616,290

Applicant(s)

FUJII ET AL.

Examiner

Kent Chang

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Response filed 12/15/05.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 7/10/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Election/Restrictions

Claims 1 and 15 are generic and allowable. Accordingly, the restriction requirement as to the encompassed species is hereby withdrawn and claims 3, 4, 18, 19, directed to the species of B, C and D are no longer withdrawn from consideration since all of the claims to this species depend from or otherwise include each of the limitations of an allowed generic claim.

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: Kobayashi (US2003/0189742), Kawamura et al (US2003/0161046), Toida (US Patent No. 6,542,245), Itabashi (US Patent No. 6,469,772), Reznichenko et al (US Patent No. 6,433,934), Bloom et al (US Patent No. 5,982,553), Deter (US Patent No. 5,892,556), and Okamura (US Patent No. 5,768,028) are made of record for teaching display devices for displaying an video image using an optical scanning system. However, the prior art of record fails teach a display device comprising: a light source section; a spatial light modulation element in which a plurality of pixel portions, each of whose state related to light modulation is changed in accordance with an image signal, are arranged in a two dimensional manner, and which modulates, every each pixel portion, the light beam incident to the plurality of pixel portions from the light source; an image forming optical system for imaging the light beam, including a pixel size adjustment section in which a plurality of beam reduction portions are arranged in a two dimensional manner correspondingly to the plurality of pixel portions, a diameter of the light beam modulated by the pixel portion being reduced by the beam reduction portion corresponding to the pixel portion; and a scanning section, by deflecting a group of the

light beams whose diameters are reduced by the pixel size adjustment section in a sub scanning direction, which scans a surface to be scanned of an image display body with the group of the light beams, wherein the plurality of pixel portions are arranged along a column direction and a row direction corresponding to the sub scanning direction and a main scanning direction orthogonal to the sub scanning direction respectively, at least the column direction being inclined with respect to the sub scanning direction by a predetermined inclining-angle, and the inclining-angle is set in accordance with a scanning density of the light beam in the main scanning direction on the surface to be scanned as recited in claim 1. Furthermore, the prior art of record fails to teach a display device comprising: a light source section which emits a light beam; an image forming optical system for imaging the light beam; a spatial light modulation element in which a plurality of pixel portions changed in accordance with an image signal, are arranged in a two dimensional manner, and which modulates, every each pixel portion the light beam incident to the plurality of pixel portions from the light source; and a scanning section, which scans a surface to be scanned of an image display body with the light beam modulated by the spatial light modulation element, wherein the plurality of pixel portions are arranged along a column direction and a row direction corresponding to the sub scanning direction and a main scanning direction orthogonal to the sub scanning direction respectively, at least the column direction being inclined with respect to the sub scanning direction by a predetermined inclining-angle, the inclining-angle is set in accordance with a scanning density of the light beam in the main scanning direction the surface to be scanned, and the inclining-angle is set such that

the light beams modulated by a plurality of the pixel portions are scanned on the same position on the surface to be scanned as recited in claim 15.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kent Chang whose telephone number is 571-272-7667. The examiner can normally be reached on Monday to Thursday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz, can be reached at 571-272-3638.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

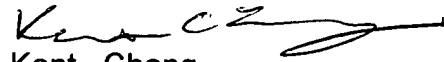
or faxed to:

571-273-8300

Hand-delivered responses should be brought to the Customer Service Window, now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kent Chang
Primary Examiner
Art Unit 2675

kc

3/16/06